WHAT IS CLAIMED IS:

1. A method for making gas hydrate comprising:

a) generating ultrafine bubbles in an aqueous solution; and

b) spontaneously generating hydrate nuclei by self-compression and collapsing of the ultrafine bubbles.

2. The method of claim 1, wherein a subset of the ultrafine bubbles have a diameter of 50 μm or less.

3. The method of claim 1, wherein a subset of the ultrafine bubbles exhibit an ascending rate of 1 mm/sec or less.

4. The method of claim 1, wherein the ultrafine bubbles are dissolved in the aqueous solution.

5. The method of claim 1, wherein the ultrafine bubbles are generated under a hydraulic pressure of more than 1 atm.

6. The method of claim 4, wherein the ultrafine bubbles are dissolved in the aqueous solution at a quantity larger than an amount of a corresponding gas that is normally dissolved at an ambient pressure.

7. The method of claim 1, wherein the gas hydrate nuclei are formed at a region of the solution above the metastable marginal curve by the collapsing phenomenon of the ultrafine bubbles.

8. The method of claim 1, wherein the ultrafine bubbles are generated by a swirling two-phase flow process.

9. The method of claim 8, wherein the ultrafine bubbles are generated by a bell ultrafine-bubble generator.

10. An apparatus for making a gas hydrate comprising:

an ultrafine bubble generator having an aqueous solution inlet, a gas inlet and an outlet for the aqueous solution containing ultrafine bubbles;

a high pressure vessel with aqueous solution having the ultrafine bubble generator place therein; and

ultrafine bubbles from the bubble generator ascending through the aqueous solution in the high pressure vessel,

wherein hydrate nuclei are generated in the aqueous solution in the high pressure vessel by self-compression and collapsing of the ultrafine bubbles.

11. The apparatus of claim 10, wherein a subset of the ultrafine bubbles have a diameter of 50 μm or less.

12. The apparatus of claim 10, wherein a subset of the ultrafine bubbles exhibit an ascending rate of 1 mm/sec or less.

13. The apparatus of claim 10, wherein the ultrafine bubbles are dissolved in the aquesous solution.

14. The apparatus of claim 10, wherein the ultrafine bubbles are generated under a hydraulic pressure of more than 1 atm.

15. The method of claim 13, wherein the ultrafine bubbles are dissolved in the aqueous solution at a quantity larger than an amount of a corresponding gas that is normally dissolved in an ambient pressure.

16. The method of claim 10, wherein the gas hydrate nuclei are formed at a region of the solution above the metastable marginal curve by the collapsing phenomenon of the ultrafine bubbles.

17. The method of claim 10, wherein the ultrafine bubbles are generated by a swirling two-phase flow process.

18. Particulate gas hydrate prepared by the method for making gas hydrate according to a following process:

a) generating ultrafine bubbles in an aqueous solution; and

b) spontaneously generating hydrate nuclei by self-compression and collapsing of the ultrafine bubbles.